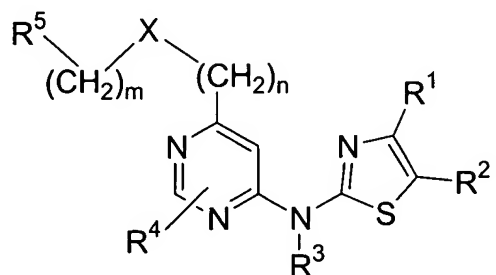


In the claims:

1. (Presently amended) A compound of Formula I



I

or a pharmaceutically acceptable salt or stereoisomer thereof, wherein

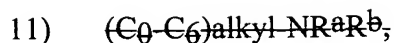
X is O, or S ~~or NR³~~;

m is 0, 1, 2 or 3;

n is 0, 1, 2 or 3;

R¹ is:

- 1) H,
- 2) O_r(C₁-C₆)perfluoroalkyl,
- 3) OH,
- 4) CN,
- 5) halogen,
- 6) (C=O)_rO_s(C₁-C₁₀)alkyl,
- 7) (C=O)_rO_s(C₂-C₁₀)alkenyl,
- 8) (C=O)_rO_s(C₂-C₁₀)alkynyl,
- 9) (C=O)_rO_saryl, or
- 10) (C=O)_rO_sheterocyclyl, ~~or~~



wherein r and s are independently 0 or 1, and said alkyl, alkenyl, alkynyl, aryl and heterocyclyl is optionally substituted with one or more substituents selected from R⁶;

R² is:

- 1) H,
- 2) O_r(C₁-C₆)perfluoroalkyl,
- 3) OH,
- 4) CN,
- 5) halogen,
- 6) (C=O)_rO_s(C₁-C₁₀)alkyl,
- 7) (C=O)_rO_s(C₂-C₁₀)alkenyl,
- 8) (C=O)_rO_s(C₂-C₁₀)alkynyl,
- 9) (C=O)_rO_saryl,
- 10) (C=O)_rO_sheterocyclyl, or
- 11) ~~(C₀-C₆)alkyl-NR^aR^b~~,

wherein r and s are independently 0 or 1, and said alkyl, alkenyl, alkynyl, aryl and heterocyclyl is optionally substituted with one or more substituents selected from R⁶;

R³ is:

- 1) H,
- 2) SO₂R^c,
- 3) (C=O)_rR^c, wherein r is 0 or 1, or
- 4) CO₂R^c;

R⁴ is:

- 1) H,
- 2) O_r(C₁-C₆)perfluoroalkyl,
- 3) OH,
- 4) CN,
- 5) halogen,
- 6) (C=O)_rO_s(C₁-C₁₀)alkyl,

- 7) $(\text{C}=\text{O})_r\text{O}_s(\text{C}_2\text{-C}_{10})\text{alkenyl}$,
- 8) $(\text{C}=\text{O})_r\text{O}_s(\text{C}_2\text{-C}_{10})\text{alkynyl}$,
- 9) $(\text{C}=\text{O})_r\text{O}_s\text{aryl}$,
- 10) $(\text{C}=\text{O})_r\text{O}_s\text{heterocyclyl}$, or
- 11) $(\text{C}_0\text{-C}_6)\text{alkyl-NR}^a\text{R}^b$,

wherein r and s are independently 0 or 1, and said alky, alkenyl, alkynyl, aryl and heterocyclyl is optionally substituted with one or more substituents selected from R^6 ;

R^5 is heterocyclyl wherein said heterocyclyl ~~contains one or two additional heteroatoms selected from N, O and S, and~~ is optionally substituted with one or more substituents selected from R^6 ;

R^6 is:

- 1) $\text{O}_r(\text{C}=\text{O})_s\text{NR}^a\text{R}^b$,
- 2) $(\text{C}=\text{O})_r\text{O}_s\text{aryl}$,
- 3) $(\text{C}=\text{O})_r\text{O}_s\text{-heterocyclyl}$,
- 4) halogen,
- 5) OH,
- 6) oxo,
- 7) $\text{O}(\text{C}_1\text{-C}_3)\text{perfluoroalkyl}$,
- 8) $(\text{C}_1\text{-C}_3)\text{perfluoroalkyl}$,
- 9) $(\text{C}=\text{O})_r\text{O}_s(\text{C}_1\text{-C}_{10})\text{alkyl}$,
- 10) CHO,
- 11) CO_2H , or
- 12) CN,

wherein r and s are independently 0 or 1, and said alkyl, aryl, and heterocyclyl are optionally substituted with one or more substituents selected from R^d ;

R^a and R^b are independently:

- 1) H,
- 2) $(\text{C}=\text{O})_r(\text{C}_1\text{-C}_{10})\text{alkyl}$,
- 3) $\text{S}(\text{O})_2\text{R}^c$,
- 4) $(\text{C}=\text{O})_r\text{heterocyclyl}$,

- 5) $(\text{C}=\text{O})_r\text{aryl}$, or
- 6) CO_2R^c ,

wherein r is 0 or 1 and said alkyl, heterocyclyl, and aryl optionally substituted with one or more substituents selected from R^d , or

R^a and R^b are taken together with the nitrogen to which they are attached to form a monocyclic or bicyclic heterocycle with 5-7 members in each ring and optionally containing, in addition to the nitrogen, one or two additional heteroatoms selected from N, O and S, said monocyclic or bicyclic heterocycle optionally substituted with one or more substituents selected from R^d ;

R^c is $(\text{C}_1\text{-C}_6)\text{alkyl}$, aryl, benzyl, or heterocyclyl;

R^d is:

- 1) $(\text{C}=\text{O})_r\text{O}_s(\text{C}_1\text{-C}_{10})\text{alkyl}$, wherein r and s are independently 0 or 1, optionally substituted with up to three substituents selected from OH, $(\text{C}_1\text{-C}_6)\text{alkoxy}$, halogen, CN, oxo, $\text{N}(\text{R}^e)_2$ and $\text{S}(\text{O})_2\text{R}^c$,
- 2) $(\text{C}=\text{O})\text{N}(\text{R}^e)_2$,
- 3) $\text{O}_r(\text{C}_1\text{-C}_3)\text{perfluoroalkyl}$,
- 4) $(\text{C}_0\text{-C}_6)\text{alkylene-S}(\text{O})_m\text{R}^c$, wherein m is 0, 1 or 2,
- 5) oxo,
- 6) OH,
- 7) halogen,
- 8) CN,
- 9) $(\text{C}_0\text{-C}_6)\text{alkylene-aryl}$, optionally substituted with up to three substituents selected from R^e ,
- 10) $(\text{C}_0\text{-C}_6)\text{alkylene-heterocyclyl}$, optionally substituted with up to three substituents selected from R^e ,
- 11) $(\text{C}_0\text{-C}_6)\text{alkylene-N}(\text{R}^e)_2$,
- 12) $\text{C}(\text{O})\text{R}^c$,
- 13) CO_2R^c ,
- 14) $\text{C}(\text{O})\text{H}$, or
- 15) CO_2H ; and

R^e is H, (C₁-C₆)alkyl, aryl, heterocyclyl or S(O)₂R^c.

2. (Presently Amended) The compound of Claim 1 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein R¹ is selected from:

- 1) H,
- 2) CN,
- 3) halogen,
- 4) OH, and
- 5) (C=O)_rO_s(C₁-C₁₀)alkyl, and
- 6) ~~(C=O)_rO_s(C₁-C₁₀)alkyl-NR^aR^b.~~

3. (Presently Amended) The compound of Claim 2 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein R² is selected from:

- 1) H,
- 2) CN,
- 3) OH
- 4) halogen,
- 5) phenyl, wherein said phenyl is optionally substituted with one or more substituents selected from R⁶, and
- 6) (C=O)_rO_s(C₁-C₁₀)alkyl, and
- 7) ~~(C=O)_rO_s(C₁-C₁₀)alkyl-NR^aR^b.~~

4. (Original) The compound of Claim 3 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein R⁴ is selected from:

- 1) H,
- 2) CN,
- 3) halogen,
- 4) (C₁-C₆)alkyl,
- 5) (C₁-C₆)perfluoroalkyl, and
- 6) (C=O)_rO_sheterocyclyl.

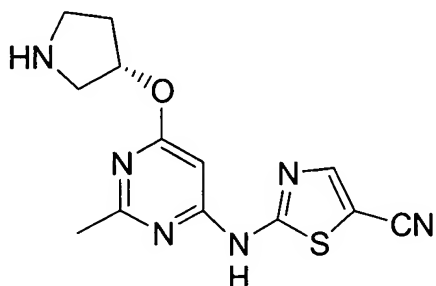
5. (Original) The compound of Claim 4 or a pharmaceutically acceptable salt or stereoisomer thereof, wherein R¹ is H; R² is CN or phenyl; R³ is H; and R⁴ is H or (C₁-C₆)alkyl.

6. (Presently Amended) A compound of Claim 1 selected from:
tert-butyl-4-({6-[(5-cyano-1,3-thiazol-2-yl)amino]pyrimidin-4-yl}oxy)piperidine-1-carboxylate;
2-{{6-(piperidin-4-yloxy)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;
tert-butyl-4-({6-[5-phenyl-1,3-thiazol-2-yl)amino]pyrimidin-4-yl}oxy)piperidine-1-carboxylate;
N-(5-phenyl-1,3-thiazol-2-yl)-6-(piperidin-4-yloxy)pyrimidin-4-amine;
tert-butyl-4-[(6-[(5-cyano-1,3-thiazol-2-yl)amino]pyrimidin-4-yl}oxy)methyl]-piperidine-1-carboxylate;
tert-butyl-4-[(6-[(5-phenyl-1,3-thiazol-2-yl)amino]pyrimidin-4-yl}oxy)methyl]-piperidine-1-carboxylate;
N-(5-phenyl-1,3-thiazol-2-yl)-6-(piperidin-4-ylmethoxy)pyrimidin-4-amine;
2-{{2-methyl-6-(piperidin-4-yloxy)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;
N-(5-phenyl-1,3-thiazol-2-yl)-6-(piperidin-4-yloxy)-2-methylpyrimidin-4-amine;
2-({2-methyl-6-[(3R)-pyrrolidin-3-yloxy]pyrimidin-4-yl}amino)-1,3-thiazole-5-carbonitrile;
2-({2-methyl-6-[(3S)-pyrrolidin-3-yloxy]pyrimidin-4-yl}amino)-1,3-thiazole-5-carbonitrile;
2-[2-methyl-6-{{1-(2-morpholin-4-ylethyl)piperidin-4-yl}oxy}pyrimidin-4-yl]amino]-1,3-thiazole-5-carbonitrile;
2-[4-({6-[(5-cyano-1,3-thiazol-2-yl)amino]-2-methylpyrimidin-4-yl}oxy)piperidin-1-yl]-N-isopropylacetamide;
2-{{2-methyl-6-(3-morpholin-4-ylpropoxy)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;
2-{{2-methyl-6-(2-morpholin-4-ylethoxy)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;
2-{{2-methyl-6-(2-piperidin-1-ylethoxy)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;
~~2-{{2-methyl-6-[(2-morpholin-4-ylethyl)amino]pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;~~
2-{{6-(piperidin-4-ylmethoxy)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;
2-{{2-methyl-6-(piperidin-4-ylmethoxy)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;
~~2-{{6-[(3-morpholin-4-ylpropyl)amino]pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;~~
~~2-{{2-methyl-6-(tetrahydro-2H-pyran-4-ylamino)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;~~

~~2-[(6-[(3-(1H-imidazol-1-yl)propyl)amino]-2-methylpyrimidin-4-yl)amino]-1,3-thiazole-5-carbonitrile;~~
~~2-[(6-[(1,1-dioxido-2,3,4,5-tetrahydrothien-3-yl)methyl]amino)-2-methylpyrimidin-4-yl]amino]-1,3-thiazole-5-carbonitrile;~~
~~2-[(6-[(1,4-dioxan-2-yl)methyl]amino)-2-methylpyrimidin-4-yl]amino)-1,3-thiazole-5-carbonitrile;~~
~~2-[(6-[(3-morpholin-4-ylpropyl)amino]pyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
~~2-[(6-[(5-cyano-1,3-thiazol-2-yl)amino]-2-methylpyrimidin-4-yl)amino]piperidin-1-yl]-N-isopropylacetamide;~~
~~tert-butyl 4-[(6-[(5-cyano-1,3-thiazol-2-yl)amino]-2-methylpyrimidin-4-yl)amino]piperidine-1-carboxylate;~~
~~2-[(2-methyl-6-(piperidin-4-ylamino)pyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
~~tert-butyl 4-[(6-[(5-cyano-1,3-thiazol-2-yl)amino]methyl)-2-methylpyrimidin-4-yl]amino)piperidine-1-carboxylate;~~
~~2-[(2-methyl-6-[(piperidin-4-yl)methyl]amino]pyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
~~2-[(5-methyl-6-(piperidin-4-ylamino)pyrimidin-4-yl)oxy]-1,3-thiazole-5-carbonitrile;~~
~~tert-butyl-2-[(6-[(5-cyano-1,3-thiazol-2-yl)amino]-2-methylpyrimidin-4-yl)oxy)methyl]-morpholine-4-carboxylate;~~
~~2-[(2-methyl-6-(morpholin-2-ylmethoxy)pyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
~~2-[(2-methyl-6-(tetrahydro-2-pyran-4-yloxy)pyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
~~2-[(2-isopropyl-6-(piperidin-4-yloxy)pyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
~~2-[(6-[(1,1-dioxido-2,3,4,5-tetrahydrothien-3-yl)amino]-2-methylpyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
~~2-[(2-methyl-6-(tetrahydrofuran-3-ylamino)pyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
~~tert-butyl 4-[(6-[(5-cyano-1,3-thiazol-2-yl)amino]-2-methylpyrimidin-4-yl)oxy)methyl]piperidin-1-yl} acetate;~~
~~{4-[(6-[(5-cyano-1,3-thiazol-2-yl)amino]-2-methylpyrimidin-4-yl)oxy)methyl]piperidin-1-yl} acetic acid;~~
~~N-(tert-butyl)-2-[(6-[(5-cyano-1,3-thiazol-2-yl)amino]-2-methylpyrimidin-4-yl)oxy)methyl]piperidin-1-yl} acetamide;~~
~~2-[(2-methyl-6-[(2-morpholin-4-ylethyl)thio]pyrimidin-4-yl)amino)-1,3-thiazole-5-carbonitrile;~~
and

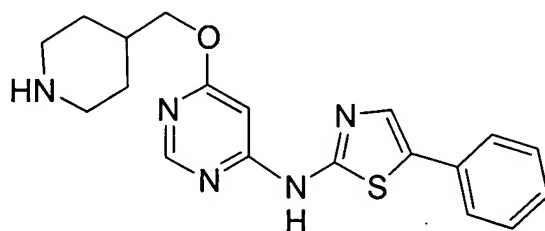
2-{{6-(piperidin-4-ylthio)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile;
or a pharmaceutically acceptable salt or stereoisomer thereof.

7. (Previously amended) A compound according to Claim 1 which is 2-({2-methyl-6-[(3S)-pyrrolidin-3-yloxy]pyrimidin-4-yl}amino)-1,3-thiazole-5-carbonitrile



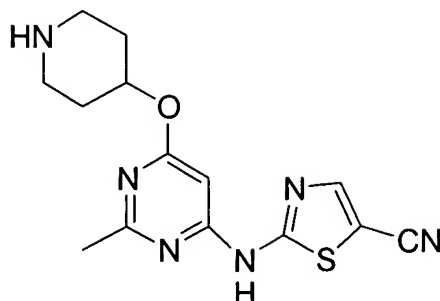
or a pharmaceutically acceptable salt or stereoisomer thereof.

8. (Previously amended) A compound according to Claim 1 which is:
N-(5-phenyl-1,3-thiazol-2-yl)-6-(piperidin-4-yloxy)pyrimidin-4-amine



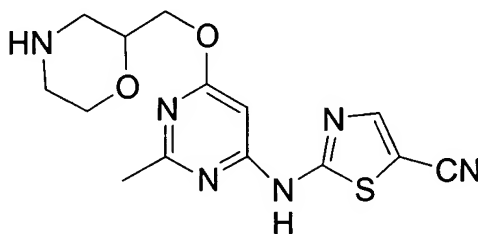
or a pharmaceutically acceptable salt thereof.

9. (Previously amended) A compound according to Claim 1 which is:
2-{{2-methyl-6-(piperidin-4-yloxy)pyrimidin-4-yl}amino}-1,3-thiazole-5-carbonitrile



or a pharmaceutically acceptable salt thereof.

10. (Previously amended) A compound according to Claim 1 which is:
2-{{[2-methyl-6-(morpholin-2-ylmethoxy)pyrimidin-4-yl]amino}-1,3-thiazole-5-carbonitrile



or a pharmaceutically acceptable salt or stereoisomer thereof.

11. (Cancelled)
12. (Cancelled)
13. (Cancelled)
14. (Original) A pharmaceutical composition which is comprised of a compound in accordance with Claim 1 and a pharmaceutically acceptable carrier.
15. (Cancel)

16. (Presently Amended) A method of treating ~~or preventing~~ cancer in a mammal in need of such treatment which is comprised of administering to said mammal a therapeutically effective amount of a compound of Claim 1 in accordance with Claim 15 wherein the cancer is selected from cancers of the brain, genitourinary tract, lymphatic system, stomach, larynx, and lung.

17. (Cancelled)

18. (Cancelled)

19. (Cancel)

20. (Cancel)

21. (Cancel)

22. (Cancel)

23. (Cancel)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

- 30. (Cancelled)
- 31. (Cancelled)
- 32. (Cancelled)
- 33. (Cancelled)
- 34. (Cancelled)
- 35. (Cancelled)
- 36. (Cancelled)
- 37. (Cancelled)
- 38. (Cancelled)
- 39. (Cancel)
- 40. (Cancel)
- 41. (Cancelled)
- 42. (Cancelled)
- 43. (Cancelled)
- 44. (Cancelled)
- 45. (Cancelled)

46. (Cancelled)

47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

52. (Cancelled)

53. (Cancelled)

54. (Cancelled)

55. (Cancelled)

56. (Cancelled)

57. (Cancelled)

58. (New) A method of treating lung adenocarcinoma in a mammal in need of such treatment which is comprised of administering to said mammal a therapeutically effective amount of a compound of Claim 1.

59. (New) A method of treating acute myeloid leukemia in a mammal in need of such treatment which is comprised of administering to said mammal a therapeutically effective amount of a compound of Claim 1.